



REMARKS

In order to expedite prosecution of the present application, Claims 20-27 have been cancelled and replaced with newly presented Claims 28-40 which are directed to a different embodiment of the present invention. That is, the currently presented claims are directed to a method of replacing electrolyte levels lowered by passive transpiration/perspiration which comprises a step of orally administering to a person in which the electrolyte levels are or will be lowered a liquid composition according to the present invention. Claims 28-40 are being presented in order to have the Examiner consider the manner by which the electrolyte levels are depleted.

As discussed in the present specification, the present invention is based on the discovery that the manner in which electrolytes are lowered necessitates a specific manner of replenishing the electrolyte levels. That is, the amounts and types of salt and other minerals lost to sweating and vigorous activities such as sports and exercising are different from the amount of salt and other minerals lost from the human body during passive transpiration/perspiration. Beverage compositions used in replenishing electrolyte levels lowered by strenuous physical exercise or exertion are typically based on various carbohydrates, a high level of sodium, sugar and other minerals.

The present inventors discovered that rehydration beverages developed for sports purposes were not suitable for replenishing electrolyte levels lowered by passive transpiration/perspiration, particularly patient's subjected to thermal therapy treatment. Rehydration beverages for sports purposes typically contain a significant energy source, in the form of readily absorbed and metabolized carbohydrates such as glucose, while the great majority of patients undergoing thermal therapy were typically on a diet since weight loss is a secondary benefit sought by most patients utilizing thermal therapy. Additionally, the patients

therapy typically have a high incidence of type II diabetes, since most of them are elderly, and therefore the administration of glucose must be carefully controlled.

As discussed in the present specification, studies have shown that the rehydration needs of young sportsmen and middle aged and elderly people passively undergoing therapeutic heat application are significantly different. That is, during passive heat conditions, much lower amounts of sodium and chloride ions were found in the collected sweat samples than in the physical exercise conditions, whereas the levels of potassium ions were found to be comparable in both conditions. Additionally, it has been noted that patients' skin often appeared to be damaged after repeated application of external heat during thermal mud bath treatments, thereby showing signs of accelerated aging, especially when associated with massive sun light or ultraviolet exposure, which are often used in health spas.

A study performed by Istituto Di Medicina Di Laboratorio that was submitted in the last Response is of record and further emphasizes that the properties and requisites for such a beverage for rehydrating subjects undergoing thermal therapy are profoundly different from beverages developed specifically for the rehydration of subjects engaging in intensive muscular efforts of the sports-agonistic type. Under the heading "2.2. Electrolytes" in this study, it is shown that there is a large difference in the amount of sodium and chloride ions lost under thermal stress conditions and physical stress conditions. The present invention is based on this discovery.

Stray-Gundersen '723 cited in the previous Office Action does not recognize a distinction between the manner in which the electrolyte levels are lowered. That is, this reference states that the beverage compositions disclosed therein are suitable for use in replenishing water, physiological essential electrolytes, nutrient minerals and carbohydrates to a person who has lost water through dehydration caused by exercise, heat or illness. This is evidenced by the numerous

components that can make up a beverage composition of this reference. As such it is respectfully submitted that given the specific nature and the obvious advantages of the present invention in replenishing electrolyte levels lowered by passive transpiration/perspiration, the presently claimed invention is clearly patentably distinguishable over the prior art of record. Favorable consideration is respectfully solicited.

Respectfully submitted,



Terryence F. Chapman

TFC/ad

FLYNN, THIEL, BOUTELL & TANIS, P.C. 2026 Rambling Road Kalamazoo, MI 49008-1631 Phone: (269) 381-1156 Fax: (269) 381-5465	Dale H. Thiel David G. Boutell Ronald J. Tanis Terryence F. Chapman Mark L. Maki David S. Goldenberg Sidney B. Williams, Jr. Liane L. Churney Brian R. Tumm Robert J. Sayfie	Reg. No. 24 323 Reg. No. 25 072 Reg. No. 22 724 Reg. No. 32 549 Reg. No. 36 589 Reg. No. 31 257 Reg. No. 24 949 Reg. No. 40 694 Reg. No. 36 328 Reg. No. 37 714
--	---	--

Encl: None

112.05/03